# Vaccinate Vermont

Vermont Department of Health

December 2013

Inside this issue:



## 2011 Quebec Measles Outbreak: Lessons Learned

The Centers for Disease Control and Prevention (CDC) recently marked the 50th anniversary of the measles vaccine and its impact on reducing illness and deaths throughout the world. In 2000, measles was declared "eliminated" from the United States — meaning that there is not continuous transmission of the virus. Despite this achievement, in 2013 there have been 175 cases of measles in the US with a 20% rate of hospitalization. Dr. Thomas Freiden, CDC Director noted that the cases of measles "are not a failure of the vaccine, but a failure to vaccinate."

Despite the success of the vaccine, outbreaks continue to occur, and each one is investigated. In 2011, the province of Quebec experienced the largest measles epidemic in North America in the last decade, despite a highly vaccinated population. Gaston De Serres*, MD, PhD, published a report on the 2011 Quebec measles outbreak in the journal *Pediatrics* (Nov. 3, 2013).

The study found that, among the 725 patients with confirmed measles, 21 were foreign importations. One imported case was employed at a high school and was responsible for secondary spread to 678 cases in the school and surrounding communities. In comparison, there were 222 cases in the entire U.S. that year.

Of the 725 cases, 507 were in children between 5 and 17 years of age, and of those cases, 102 had received 2 doses of MMR vaccine at $\geq$ to 12 months of age. Vaccine effectiveness in 2-dose recipients was 94%.

Dr. De Serres reported a greater risk of measles among 2-dose vaccine recipients whose first dose was given at 12 to 13 months rather than ≥15 months of age. It was widely assumed that the 2nd dose would overcome the problem of higher vulnerability for those who received their first measles vaccine at 12 vs. 15 months, but his findings challenge this assumption.

Dr. De Serres believes that maternal antibody, known to interfere with antibody replication, is not the only reason to explain a better immune response with an older age at first dose. He has noted that the quality of the humoral response improves with increased age of vaccine administration.

Measles elimination requires at least 95% of the population to be immune. If some percentage of 2-dose recipients remain susceptible, in addition to those that are un-vaccinated, the risk for sustained disease transmission is further increased.

While the results of this this study are interesting, and more research is needed, the Advisory Committee on Immunization Practice's (ACIP) must weigh new information with what they already know about the timing of the MMR vaccine in children. The ACIP met in June, 2013, and decided to maintain current recommendations for prevention and control of measles, mumps and rubella http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6204a1.htm .

* Dr. De Serres has published several papers on this topic, and presented a lecture at the Northeast Epidemiology Conference and the Vermont Infectious Disease Conference October 16-19, 2013 in Burlington.

*The current ACIP recommendation states that: all eligible children should receive the first dose of MMR vaccine routinely at age 12 through 15 months and as soon as possible upon reaching age 12 months of age.*

## 2-Dose Varicella Vaccination Improves Protection

Dr. Stephanie Bialek from the CDC led a research team that looked at the effectiveness of two doses of varicella vaccine. It was published in the journal *Pediatrics* (Oct. 7, 2013). The researchers looked at rates and severity of varicella infections between 1995 (when the single dose of vaccine was first recommended) through 2010 in two specific communities: Antelope Valley, CA and West Philadelphia, PA.

They found that the number of varicella infections decreased 98% between 1995-2010. After the second dose of varicella was recommended in 2006, the researchers found a significant decline in the number of cases across all age groups. In addition, those people who were vaccinated and still got the infection had milder symptoms.

In addition, researchers found that the drop in infections was seen in babies too young to be immunized, and in unvaccinated adults who had never had the disease. In Vermont, the rates of varicella coverage among children ages 19-35 months is 80.4%, which is lower than the national average of 90.2% (NIS data http://1.usa.gov/1gF83tx) This gap in coverage highlights the need for enhanced public education on the importance of varicella vaccine in young children.

***Vaccination***

## Response to Polio in Syria

An urgent polio vaccination campaign targeting over 20 million children is being launched by the World Health Organization (WHO) in response to the reemergence of polio in Syria. Children in Syria and parts of Iraq, Jordan, Lebanon and Turkey will be targeted for polio vaccination. The region was polio-free for 10 years, until a Pakistani strain of the polio-virus was detected in sewers in Egypt in January 2013. It has since been found in sewers in Israel, Gaza and the West Bank.

Last month, ten paralyzed Syrian children were diagnosed with polio. The reemergence of polio has been attributed to low vaccination rates, and a public health system in disarray as a result of the ongoing civil war.

The WHO began a polio eradication campaign 25 years ago, and had eliminated the disease in all but three countries (Pakistan, Afghanistan and Nigeria), down from more than 125 countries in 1988. The polio virus has a remarkable ability to find vulnerable populations. Timely vaccination is essential to preventing the return of polio in this region and beyond.

## It's Ok to Ask Immunization Campaign Update

Since the launch of VDH's It's Ok to Ask campaign in April, 2013, there have been over twenty thousand visits to the website, and active engagement with It's Ok to Ask on Facebook, Twitter and YouTube according to the social media metrics.

Two goals of this campaign are to educate vaccine hesitant parents and to be a resource for immunization news. Therefore, fresh content, articles and research studies are added to social media channels daily, and are frequently shared by followers on social media.

We invite you to be part of the trend and visit the website at www.oktoaskvt.org, like us on Facebook and follow us on Twitter.

## Healthy children at risk for Influenza-related death

A new CDC study found that the flu can be fatal in healthy children. The study, published in the journal *Pediatrics* (Oct. 23, 2013), analyzed reported flu-related deaths in children younger than 18 years from Oct. 2004 through Sept. 2012. In that time, 830 lab-confirmed flu-associated, pediatric deaths occurred. Among the children with a known medical history (794) about 43% did not have a high-risk medical condition. The study highlights the need for protection in this population.

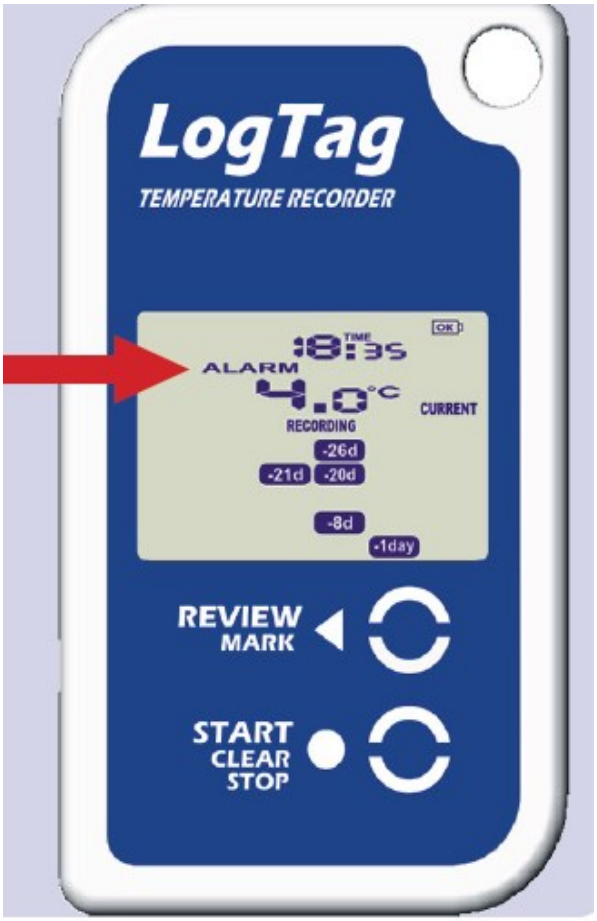
The study uncovered other factors that further support flu vaccination for all children:

- Flu-associated deaths in children often occurred quickly. Most children died within one week of symptom onset, and 35% of the children died prior to hospital admission.
- Antiviral medications should be prescribed as appropriate. However, the effectiveness is variable.

CDC reported that about 57% of children ages 6 months—17 years got one or more doses of the influenza vaccine during the 2012-2013 season. Let's protect Vermont's children by promoting vaccination throughout the influenza season.

## 5 simple tips for Data Logger (DL) Use

1. Glance at the data logger every time you open the refrigerator or freezer and check to SEE if it says ALARM. Remember the alarm is NOT audible (see picture). If your DL shows ALARM, you must download the data immediately, email the file to the immunizationprogram@state.vt.us and call the Immunization Program at 800-640-4374.
2. When you download the DL, your practice is the only one to see the information. It does not transmit automatically to the central office. We see it only if you attach the file to an email and send it to immunizationprogram@state.vt.us.
3. When you email, attach the Logtag file (.ltd) - NOT the (red) .PDF file. Include your name and phone number.
4. Review your download every time, especially the last tab called Day Summary. It will tell you about any temperature excursions.
5. When you write the morning and afternoon temperatures on the paper Temp Log, be sure to write them in the correct column. You will know immediately if you are out of range (in the red or blue columns). Check the min/max daily and call when any temps are out of range. The 24 hour cycle for the min/max starts at midnight each day. Press the review button twice to view the previous 24 hour period.

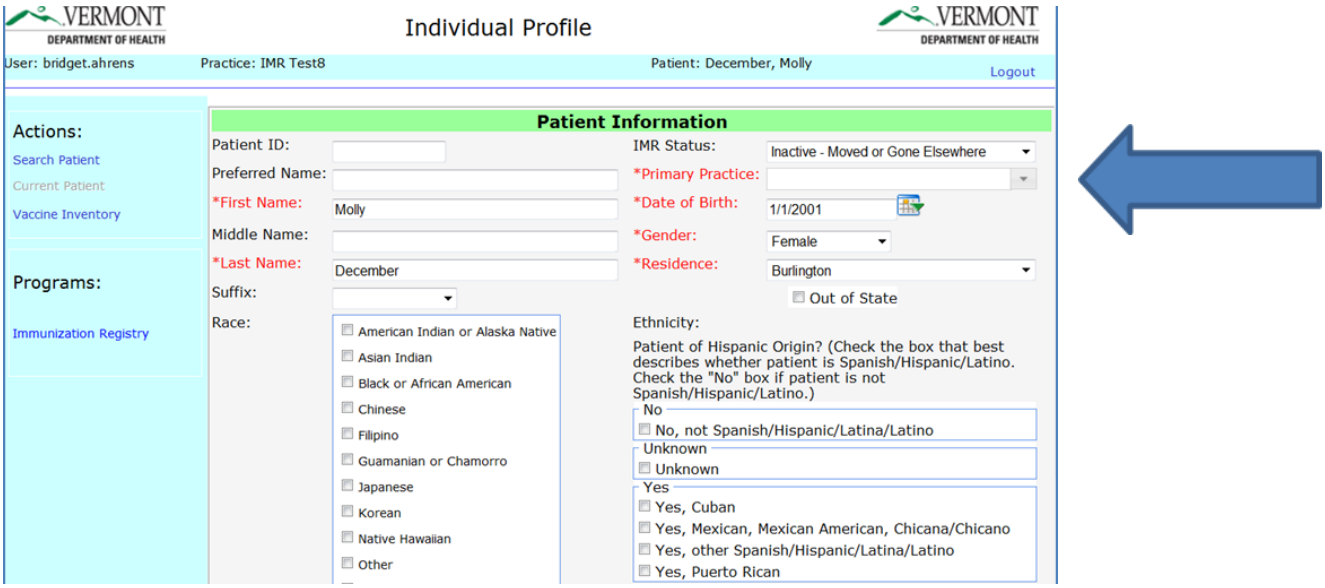


# Patient Management and the Immunization Registry

When you enter an immunization for a patient, the Immunization Registry saves the record as a patient at your practice, unless you override that using the Primary Practice field. That patient will be part of all your practice level reports – unless you indicate they are no longer your patient. If the patient moves to another VT practice, the practice association will be corrected once the patient receives another immunization. But, if the patient moves out of state, or does not receive any subsequent immunizations, they will remain associated with your practice.

Most practices discover this issue when they run practice level reports. Patients who have moved to another state will no longer have subsequent immunizations recorded in the Vermont Immunization Registry. These patients need to be flagged as Moved or Gone Elsewhere so they do not affect your vaccine coverage rates.

To flag a patient, open the patient record and look for the IMR Status field at the upper right corner of the Individual Profile. The status will be Active. Choose Inactive – Moved or Gone Elsewhere. Then choose SAVE at the bottom of the screen.




You will notice that once the IMR Status has been changed, your practice name will no longer appear in the Primary Practice field. You will still be able to find the patient in the Registry, but they will not appear on your practice reports while their status is Inactive.

Should you get a new patient, and notice their status is Inactive, you may make the person your patient by choosing your practice from the Primary Practice field. Always remember to choose SAVE after you make a change.

Keep in mind that if you administer an immunization to an inactive patient and send it to the Registry via the batch file or an HL7 message, it will change the patient status back to Active, and re-associate the patient to your practice.

Although we are doing everything we can to streamline Registry use, changing patient status is something that can be done only via the web application. However, the process is quick, and practices that have taken on the task have been gratified to see the resulting impact on their coverage rates. If you have any questions about the IMR Status field, please call us anytime at (888) 688-4667.

VERMONT
DEPARTMENT OF HEALTH

108 Cherry Street
PO Box 70
Burlington, VT 05402

Phone: 1-800-640-4374
Fax: 802-863-7395
**healthvermont.gov/hc/imm/index.aspx**

***Vaccinate for Life***